

TENT COOPERATION TREATY





PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 03SGL0103WOP	TOD DIDDUCTION ACCUSANT	JRTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)						
International application No. PCT/EP2003/003884	International filing date (day/mont 15 April 2003 (15.04.20							
International Patent Classification (IPC) or n H01L 21/316, 21/311, 21/027, 2	national classification and IPC							
Applicant SCHOTT AG								
and is transmitted to the applicant a 2. This REPORT consists of a total of This report is also accompar amended and are the basis for 70.16 and Section 607 of the	ccording to Article 36. 7 sheets, including the state of the s	description, claims and/or drawings which have been rectifications made before this Authority (see Rule						
3. This report contains indications relating to the following items: I Basis of the report Priority								
IV Lack of unity of in	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV Lack of unity of invention Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;							
citations and explanations supporting such statement VI Certain documents cited VII Certain defects in the international application VIII Certain observations on the international application								
Date of submission of the demand	Date of co	mpletion of this report						
06 September 2003 (06.		08 September 2004 (08.09.2004)						
Name and mailing address of the IPEA/EP	Authorized	d officer						
Facsimile No.	Telephone	Telephone No.						

Form PCT/IPEA/409 (cover sheet) (July 1998)

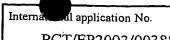


International application No.

PCT/EP2003/003884

		•	1. Basis of the report						
1 - With		the elements of the international application:*							
\boxtimes	the inter	mational application as originally filed							
	the desc	cription:	•						
	pages	1-36	, as originally filed						
	pages		, filed with the demand						
	pages	, filed with the letter of	,						
	the clair	me:							
	pages	. 1-53							
	pages		, as originally filed						
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These	the lang the lang or 55.3) regard minary ex containe furnishe	guage of a translation furnished for the purposes of international search (under Rule 23.1(b)). guage of publication of the international application (under Rule 48.3(b)). guage of the translation furnished for the purposes of international preliminary examination b. to any nucleotide and/or amino acid sequence disclosed in the international applical amination was carried out on the basis of the sequence listing: ed in the international application in written form. gether with the international application in computer readable form. ed subsequently to this Authority in written form.	which is: (under Rule 55.2 and/ tion, the international						
	internat	atement that the subsequently furnished written sequence listing does not go beyond ional application as filed has been furnished. Itement that the information recorded in computer readable form is identical to the written raished.	•						
4.		he description, pages he claims, Nos he drawings, sheets/fig							
	beyond t	ort has been established as if (some of) the amendments had not been made, since they have he disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**							
and 7	0.17).	heets which have been furnished to the receiving Office in response to an invitation under Art as "originally filed" and are not annexed to this report since they do not contain amo	endments (Rule 70.16						
		nt sheet containing such amendments must be referred to under item 1 and annexed to this repo	ort.						





PCT/EP2003/003884 III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability 1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of: the entire international application. because: the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (specify): the description, claims or drawings (indicate particular elements below) or said claims Nos. are so unclear that no meaningful opinion could be formed (specify): the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed. no international search report has been established for said claims Nos. 2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions: the written form has not been furnished or does not comply with the standard. the computer readable form has not been furnished or does not comply with the standard.



Internal application No.
PCT/EP2003/003884

rv. Lack of unity of invention	, , , , , , , , , , , , , , , , , , ,
1. In response to the invitation to restrict or pay additional fees the applicant has:	
restricted the claims.	
paid additional fees.	
paid additional fees under protest.	
neither restricted nor paid additional fees.	· .
This Authority found that the requirement of unity of invention is not complied with and chose, account to invite the applicant to restrict or pay additional fees.	cording to Rule 68.1,
3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 a	and 13.3 is
complied with.	
not complied with for the following reasons:	
See supplemental sheet	
	<i>,</i>
	÷
4. Consequently, the following parts of the international application were the subject of international prelimin establishing this report:	inary examination
all parts.	
the parts relating to claims Nos	
1-10,41,42,33	·

Supplemental Box

◆To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: BOXES III and IV.3

BOX III

see international search report, partial search, PCT/ISA/206, further indications

BOX IV.3

see international search report, partial search, PCT/ISA/206, separate sheet

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53

NO

YES

NO

V.	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement					
1.	Statement	•	,			
	Novelty (N)	Claims			YES	

Claims

Claims YES

Claims 6-9 NO

1-4, 10, 41, 42,

Industrial applicability (IA)

Claims

1-10, 41, 42, 53

Claims

Citations and explanations

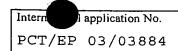
Inventive step (IS)

This report makes reference to the following documents:

- D1: US 2001/055864 A1 (SHI LEATHEN ET AL) 27 December 2001 (2001-12-27)
- D2: PATENT ABSTRACTS OF JAPAN Vol. 008, No. 014 (P-249), 21 January 1984 (1984-01-21) & JP 58 172679 A (FUJI SHASHIN FILM KK), 11 October 1983 (1983-10-11)
- D3: PATENT ABSTRACTS OF JAPAN Vol. 2000, No. 12, 3

 January 2001 (2001-01-03) & JP 2000 241985 A

 (PIONEER ELECTRONIC CORP), 8 September 2000 (2000-09-08)
- D4: US-A-4 506 435 (PLISKIN WILLIAM A ET AL) 26 March 1985 (1985-03-26)
- D5: ANONYMOUS: 'Balanced Resistance Magnetoresistive Head Compensated against Thermal and Piezoresistive Effects. April 1975.' IBM TECHNICAL DISCLOSURE BULLETIN, Vol. 17, No. 11, 1 April 1975 (1975-04-01), pages 3478-3480, XP002264775, New York, US
- 1. The subject matter of claims 1, 2, 4, 10, 41, 42, 43 and 53 is not novel and the requirement of PCT Article 33(2) is therefore not met.
- 1.1 Document D1 is regarded as the closest prior art and



discloses:

a process for the structured coating of a substrate having at least one surface to be coated, the process comprising the following steps:

the production of a first, negatively structured coating on at the least one surface (claim 27, step (a));

the deposition of at least one second layer comprising a vaporised glass (claim 32) onto the surface provided with the first coating and the at least partial removal of the first coating (claim 27, step (c)).

Moreover, D2-D5, all of which belong to entirely different technical fields, also disclose each of the technical features of claim 1. This indicates that the scope of claim 1 is too general.

- 1.2 Claim 2: the step of producing a first, negatively structured coating on the at least one surface also includes in D1 the step of exposing zones of the at least one surface to be coated (figure 4).
- 1.3 Claims 4 and 10: the deposition of vaporisation glass of course always include vaporisation, and the step of depositing a second layer which includes a vaporisation glass is carried out in D1 by sputtering; see claim 32.
- 1.4 Claims 41-43: since the process for coating a substrate having at least one surface to be coated with a structured coating according to the steps in claim 1 is not novel, the resultant structured



substrate cannot be novel either. Moreover, the deposited glass layer in D1 forms part of a micro-electromechanical structure (see, for example, the abstract).

- 1.5 Claim 53: since the process for coating a substrate with a structured coating as per claim 1 is known, it is obvious that the device used to implement the process already exists.
- The subject matter of claims 3 and 6-9 is not inventive and the requirement of PCT Article 33(3) is not met.
- 2.1 Claim 3: the known process can of course be implemented with all types of substrates; see also documents D2 to D5.
- 2.2 Claim 6: the vaporisation of inorganic materials is generally carried out by electron-beam vaporisation.
- 2.3 Claim 7: it is common to use a single material source during the vaporisation step, for example by sputtering, in order to keep the process as simple as possible.
- 2.4 Claim 8: on the contrary, it is common to use for each component its own source (e.g. for SiO₂ a Si source and an O₂ source) when vaporising by CVD.
- 2.5 Claim 9: a person skilled in the art chooses the composition of a deposited layer as needed.